

ABSTRACT

There is provided a method of manufacturing a solid oxide fuel cell module comprising a plurality of cells each made up of a fuel electrode, an electrolyte, and an air electrode sequentially formed on a surface of a substrate with an internal fuel flow part provided therein, at least a face of the substrate, in contact with the cells, and interconnectors, being an insulator, and the cells adjacent to each other, being electrically connected in series through the intermediary of the respective interconnectors, said method of manufacturing the solid oxide fuel cell module comprising the steps of co-sintering the respective fuel electrodes, and the respective electrolytes, subsequently forming a dense interconnector out of a dense interconnector material, or an interconnector material turning dense by sintering in at least parts of the solid oxide fuel cell module, in contact with the respective fuel electrodes, and the respective electrolyte, and forming an air electrode on the respective electrolytes before electrically connecting the air electrode with the respective dense interconnectors. With the invention, it is possible to solve various problems of sinterability, encountered in the process of manufacturing the solid oxide fuel cell module of a multi-segment type, and to secure electrical contact of the parts of the respective dense interconnectors, in contact with the fuel electrodes while attaining high gas-sealing performance by the agency of the respective dense interconnectors, and electrolytes, thereby enhancing productivity.